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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,221	04/16/2004	Clarke Berdan II	25402A	1171

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OWENS CORNING
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EXAMINER	
COLILLA, DANIEL JAMES	
ART UNIT	**PAPER NUMBER**
2854	

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/826,221	BERDAN, CLARKE	
	Examiner	Art Unit	
	Daniel J. Colilla	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2004 and 30 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *17-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-14 and 16* is/are rejected.

7)☒ Claim(s) *7 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/30/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-16 are, drawn to a method for forming decorative panel products, classified in class 101, subclass 485.

   II. Claims 17-22, drawn to an apparatus for manufacturing decorative panel products, classified in class 400, subclass 621.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by another materially different apparatus such as separate cutting and printing apparatus.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Maria Gasaway on 11/2/05 a provisional election was made with traverse to prosecute the invention of I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-22 withdrawn from

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

3. Claims 6 and 15 are objected to because of the following informalities:

In claim 6, line 6, "a cover layer" appears to be a double recitation of that which is already recited in claim 5. This objection could be overcome by replacing "a cover layer" with --said cover layer-- or --the cover layer.--

In claim 15, line 8, it appears that --by-- should be inserted before "adjusting" for proper grammar.

In claim 18, line 5, it appears that "a transfer base" should be --the transfer base-- or --said transfer base-- in order to avoid a double recitation.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3, 5, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Hoeven (US 4,801,495) in view of Kitamura et al. (JP 2001-232700).

With respect to claims 1, 3, 5, 11 and 13, van der Hoeven discloses the method for forming decorative panel products except for the application of alignment marks and the aligning the printed substrate with a cutting device and driving the cutting device. Van der Hoeven discloses preparing a substrate (underlay) as described in col. 2, lines 54-58. In col. 3, lines 5-8, van der Hoeven discloses that the substrate (underlay) can be covered with a cover layer (printed film or paper). Kitamura et al. teaches applying a decorative image 4 and alignment marks 2a,2b to a surface of a substrate 1 as shown in Figure 5 of Kitamura et al. Further disclosed by Kitamura et al. is detecting the alignment marks 2a,2b with sensor 29 (see paragraph [0054] of the machine translation of Kitamura et al.) and aligning the printed substrate with a cutting device 32, 36 and 38 as taught in paragraph [0055] of the machine translation of Kitamura et al. Driving the cutting device 32, 35 and 38 is taught in paragraph [0057] of Kitamura et al. It is noted that the cutting device must inherently be driven using the image data file so that the cuts can be made in appropriate places with respect to the printed image. It would have been obvious to combine the teaching of Kitamura et al. with the method for forming decorative panel products disclosed by van der Hoeven for the advantage of accurately cutting printed decorative layers with respect to the printed images that may have been printed askew with respect to the printing sheet.

With respect to claim 9, van der Hoeven in view of Kitamura et al. discloses the claimed method as mentioned above with respect to claim 1, and additionally, Kitamura et al. teaches transforming the image data file. In paragraph [0055], Kitamura teaches that, based on the image pick-up data of the CCD sensor 29, the distance YA (refer to drawing 5(a)) from 4s of side sides used as the conveyance criteria of a form 1 to A section 2a of the cut mark 2 is computed, the

gap from the criteria location of a form is computed, and the location of the margin slitting machine 32, and the pin center, large slitting machines 36 and 38 is finely tuned according to this gap." Furthermore, in paragraph [0057], lines 5-9, Kitamura et al. teaches that "based on a difference with the value of YB. . . the data of the cut location where the cutter unit 30 cuts out a form in the direction of a right angle to the conveyance direction F are determined. Kitamura et al. is computing positions of cutting locations (i.e. transforming the image file data) to compensate for the deviated position of the image on the paper.

6. Claims 1-2 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osumi et al. (US 2003/0091758) in view of Kitamura et al. (JP 2001-232700).

With respect to claim 1, Osumi et al. discloses the method for forming decorative panel products except for the application of alignment marks and the aligning the printed substrate with a cutting device and driving the cutting device. Osumi et al. discloses preparing a substrate (translucent substrate board 22) and applying a decorative sheet 21 to the substrate as shown in Figure 8 of Osumi et al. In paragraph [0030] Osumi et al. discloses the decorative sheet 21 may be a printed layer. Kitamura et al. teaches applying a decorative image 4 and alignment marks 2a,2b to a surface of a substrate 1 as shown in Figure 5 of Kitamura et al. Further disclosed by Kitamura et al. is detecting the alignment marks 2a,2b with sensor 29 (see paragraph [0054] of the machine translation of Kitamura et al.) and aligning the printed substrate with a cutting device 32, 36 and 38 as taught in paragraph [0055] of the machine translation of Kitamura et al. Driving the cutting device 32, 35 and 38 is taught in paragraph [0057] of Kitamura et al. It is noted that the cutting device must inherently be driven using the image data file so that the cuts

can be made in appropriate places with respect to the printed image. It would have been obvious to combine the teaching of Kitamura et al. with the method for forming decorative panel products disclosed by Osumi et al. for the advantage of accurately cutting printed decorative layers with respect to the printed images that may have been printed askew with respect to the printing sheet.

With respect to claim 2 and 10, Osumi et al. teaches modifying edge surfaces 22a of the panel for form a finished panel product as shown in Figure 8 of Osumi et al. and described in paragraph [0133] of Osumi et al.

With respect to claim 9, Osumi et al. in view of Kitamura et al. discloses the claimed method as mentioned above with respect to claim 1, and additionally, Kitamura et al. teaches transforming the image data file. In paragraph [0055], Kitamura teaches that, based on the image pick-up data of the CCD sensor 29, the distance YA (refer to drawing 5(a)) from 4s of side sides used as the conveyance criteria of a form 1 to A section 2a of the cut mark 2 is computed, the gap from the criteria location of a form is computed, and the location of the margin slitting machine 32, and the pin center, large slitting machines 36 and 38 is finely tuned according to this gap." Furthermore, in paragraph [0057], lines 5-9, Kitamura et al. teaches that "based on a difference with the value of YB. . . the data of the cut location where the cutter unit 30 cuts out a form in the direction of a right angle to the conveyance direction F are determined. Kitamura et al. is computing positions of cutting locations (i.e. transforming the image file data) to compensate for the deviated position of the image on the paper.

7. Claims 1, 4, 8, 9, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (US 2003/0041962) in view of Kitamura et al. (JP 2001-232700).

With respect to claim 1, Johnson et al. discloses the method for forming decorative panel products except for the application of alignment marks and the aligning the printed substrate with a cutting device and driving the cutting device. Johnson et al. discloses preparing a substrate 22 and applying a decorative printed image 24 to the substrate as shown in Figure 2 of Johnson et al. Kitamura et al. teaches applying a decorative image 4 and alignment marks 2a,2b to a surface of a substrate 1 as shown in Figure 5 of Kitamura et al. Further disclosed by Kitamura et al. is detecting the alignment marks 2a,2b with sensor 29 (see paragraph [0054] of the machine translation of Kitamura et al.) and aligning the printed substrate with a cutting device 32, 36 and 38 as taught in paragraph [0055] of the machine translation of Kitamura et al. Driving the cutting device 32, 35 and 38 is taught in paragraph [0057] of Kitamura et al. It is noted that the cutting device must inherently be driven using the image data file so that the cuts can be made in appropriate places with respect to the printed image. It would have been obvious to combine the teaching of Kitamura et al. with the method for forming decorative panel products disclosed by Johnson et al. for the advantage of accurately cutting printed decorative layers with respect to the printed images that may have been printed askew with respect to the printing sheet.

With respect to claims 4 and 12, Johnson et al. teaches applying a primer layer 30 (tie coat layer) to at least a portion of a major surface of the substrate as shown in Figure 2 of Johnson et al. and printing the decorative image on the primer layer 30.

With respect to claim 8 and 16, Johnson et al. teaches forming a protective layer 26 on the decorative image layer 24 as shown in Figure 2 of Johnson et al.

With respect to claim 9, Johnson et al. in view of Kitamura et al. discloses the claimed method as mentioned above with respect to claim 1, and additionally, Kitamura et al. teaches transforming the image data file. In paragraph [0055], Kitamura teaches that, based on the image pick-up data of the CCD sensor 29, the distance YA (refer to drawing 5(a)) from 4s of side sides used as the conveyance criteria of a form 1 to A section 2a of the cut mark 2 is computed, the gap from the criteria location of a form is computed, and the location of the margin slitting machine 32, and the pin center, large slitting machines 36 and 38 is finely tuned according to this gap." Furthermore, in paragraph [0057], lines 5-9, Kitamura et al. teaches that "based on a difference with the value of YB. . . the data of the cut location where the cutter unit 30 cuts out a form in the direction of a right angle to the conveyance direction F are determined. Kitamura et al. is computing positions of cutting locations (i.e. transforming the image file data) to compensate for the deviated position of the image on the paper.

8. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Hoeven (US 4,801,495) in view of Kitamura et al. (JP 2001-232700), as applied to claims 5 and 13 above, and further in view of Hatori. (JP 2000-318389).

Van der Hoeven in view of Kitamura et al. discloses the claimed method for forming decorative sheets except for the use of a transfer base. Van der Hoeven is also silent on whether he uses a reverse decorative image. Hatori teaches applying a reverse decorative image to a transfer base 1 (as shown in Figure 7(d) of Hatori) to form an image layer on the transfer base, bringing the image layer into contact with a cover layer 6 (Figure 7(g) of Hatori) transferring the majority of the image layer from the transfer base 1 to the cover layer 6 and applying the printed

cover layer to the surface of a substrate 7 as shown in Figure 7(h) of Hatori. It would have been obvious to combine the teaching of Hatori with the method for forming decorative sheets disclosed by van der Hoeven in view of Kitamura et al. for the advantage of being able to apply printed image to substrates that cannot be printed directly.

Allowable Subject Matter

9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 15 is objected to as being dependent upon a rejected base claim and objected to for the above mentioned informalities, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome the informalities.

11. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 has been indicated as containing allowable subject matter primarily for the steps of comparing an observed positioning of the detected alignment marks with an expected positioning of the detected alignment marks corresponding to the image data file and repeating the comparing and adjusting steps.

Claim 15 has been indicated as containing allowable subject matter primarily for the steps of comparing the observed positioning of the detected alignment marks with an updated

expected positioning of the detected alignment marks corresponding to the transformed image data file and repeating the preparing comparing steps.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 2, 2005

Daniel J. Colilla
Primary Examiner
Art Unit 2854